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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,003	04/10/2001	Martin Lavoie	1561-68	9571
23117	7590	06/14/2005	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			HOSSAIN, TANIM M	
		ART UNIT	PAPER NUMBER	
		2145		

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/829,003	LAVOIE ET AL.	
	Examiner	Art Unit	
	Tanim Hossain	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 25 February 2005.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-53 is/are pending in the application.

4a) Of the above claim(s) 1-23 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 24-53 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/25/05.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 24-31, 34-41, and 44-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Addink (U.S. 6,042,477).

As per claim 24, Addink teaches a computer network having a plurality of terminals each having a processor, a memory, a manual input, and a network connection, wherein each of said terminals executes instructions to define a shared virtual environment (column 3, lines 1-11); each of said instructions includes a local object defining a local entity, said object including data defining attributes of said entity, wherein said entity is perceived by a user as being controllable within said shared virtual environment in response to manual control that changes said data (column 4, lines 37-65); said local object is duplicated on other network terminals as a duplica (column 4, lines 45-52); each terminal predicts the data of its duplicas (4; 53-65); each terminal modifies the predicted data of its duplicas in response to receiving updates from the duplicas' originating terminals (4; 37-65); and each originating terminal sends updates to specific destination terminals in dependence of an assessment of update necessity, wherein said assessment includes a measurement of relevance between a first entity and a second entity, said

first entity being defined by the local object at said originating terminal and said second entity being defined by a local object at the destination terminal (column 5, lines 1-9).

As per claim 25, Addink teaches a computer network according to claim 24, wherein said assessment of update necessity includes a comparison between the data of said local object at said originating terminal and the predicted data of the duplica at the destination terminal (column 6, lines 26-45).

As per claim 26, Addink teaches a computer network according to claim 24, wherein said assessment of update necessity includes the computation of an error value, and said originating terminal sends an update if said computed error value is larger than an error tolerance that is a function of said measurement of relevance (column 6, lines 20-55).

As per claim 27, Addink teaches a computer network according to claim 24, wherein said measurement of relevance is performed by comparing the data of said local object of said originating terminal and the predicted data of the duplica defining said second entity that is stored on said originating terminal (column 6, lines 20-67).

As per claim 28, Addink teaches a computer network according to claim 24, wherein said measurement of relevance is a measurement of distance between the positions of said first and second entities in said shared virtual environment as defined by the data of said objects (column 5, lines 1-9).

As per claim 29, Addink teaches a computer network according to claim 24, wherein each of said entities is considered to have a visible area of said shared virtual environment based on the attributes of said entity and the layout of said environment, and said measurement of

relevance is a function of the position of said first entity within said shared virtual environment with respect to the visible area of said second entity (column 4, lines 37-65).

As per claim 30, Addink teaches a computer network according to claim 24, wherein said attributes of an entity include the position within said shared virtual environment of said entity (column 4, lines 37-65).

As per claim 31, Addink teaches a computer network according to claim 24, wherein said attributes of an entity include the direction and velocity of travel of said entity within said shared virtual environment (column 4, lines 37-65).

Claims 34-41, and 44-51 are rejected on the same bases as claims 24-31 respectively.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 32, 33, 42, 43, 52, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Addink in view of Katz (U.S. 5,623,642).

As per claim 32, Addink teaches a computer network according to claim 24, but does not specifically teach that the attributes of an entity include the state of a weapon of said entity. Katz teaches the sending of packets, which enumerate weapons characteristics (column 2 lines 41-52). It would have been obvious to one of ordinary skill in the art at the time of the invention to

include the ability to receive weapon information in the context of a flight simulation, as taught by Katz in the system of Addink. Receiving weapon status would enable the player to better plan a course of action based on the weapons armed. Both inventions are from the same field of endeavor, namely efficient network gaming with multiple users.

As per claim 33, Addink-Katz teaches a computer network according to claim 24, wherein said assessment of update necessity includes a measurement of the available network bandwidth (Katz: column 3, lines 25-59).

Claims 42, 43, 52, and 53 are rejected on the same bases as claims 32 and 33.

Response to Arguments

The arguments filed on February 25, 2005 have fully been considered but are not persuasive.

a. Applicant contends that Addink does not teach the assessment of update necessity and that there is no measurement of relevance. Examiner respectfully asserts that the sole updating of the thirty closest targets (column 5, lines 1-9) constitutes an assessment of update necessity, and that measurement of the relevance between these targets must take place to gauge which thirty are actually the closest.

b. Addink-Katz solves the problem of bandwidth conservation.
c. Dynamic error threshold alterations using PHBDR is not a claimed limitation and must therefore be disregarded.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanim Hossain whose telephone number is 571/272-3881. The examiner can normally be reached on 8:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin-Wallace can be reached on 571/272-6159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tanim Hossain
Patent Examiner
Art Unit 2145

V. Martin Wallace
VALENCIA MARTIN-WALLACE
SUPERVISORY PATENT EXAMINER